

LECTURE OUTLINE

1. Pressure (P).....5.1
 - a. measuring pressure; manometers
 - b. units: mmHg, torr, Pa, atm

2. Kinetic Molecular Theory (K.M.T.).....5.6
 - a. pressure in terms of K.M.T.
 - i. collision frequency
 - ii. collision energy
 - b. temperature in terms of K.M.T.
 - i. kinetic energy & velocity
 - ii. absolute temperature scale: Kelvins
 - c. qualitative relationship between pressure (P) and
 - i. number of moles (n)
 - ii. temperature (T)
 - iii. volume (V)

3. Ideal Gas Law & laws derived from the Ideal Gas Law..... 5.2-5.3
 - a. relationship between P, V, T & n; the gas constant
 - b. combined gas law
 - c. Avogadro's Law

4. Gas Phase Stoichiometry & Partial Pressures..... 5.4-5.5
 - a. P, V, T and number of moles conversions (Ideal Gas Law)5.3
 - b. Avogadro's Law & volumetric stoichiometry; STP & molar volume5.2
 - c. Dalton's Law of Partial Pressures5.5

5. Atmospheric Chemistry: Acid Rain.....5.10